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EXAMINER

EVANS, KIMBERLY L

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/804,364	<b>Applicant(s)</b> KING ET AL.	
	<b>Examiner</b> KIMBERLY EVANS	<b>Art Unit</b> 4143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/16/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/27/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Status of Claims**

1. This action is in reply to the application filed on March 16, 2004.
2. Claims 1-12 are currently pending and have been examined.

### **Information Disclosure Statement**

3. The Information Disclosure Statement filed on February 27, 2008 has been considered. An initialed copy of the Form 1449 is enclosed herewith.

### **Drawings**

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "310", "501", "502", "508", "540", "542", "544", and "1210". Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### **Specification**

5. The use of the trademark "Oracle" has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.
6. The disclosure is objected to because of the following informalities: inconsistent reference to acronym "PMF" vs. "PFM". Appropriate correction is required.

### **Claim Rejections - 35 USC § 112**

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
8. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 also refers to an "audit manager"; however it is not clear as to whether the audit manager is a person, system, or method. The content of the "audit system"

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described in Claim 1 is indeterminable and needs to be claimed with more clarity. Examiner is confused as to whether the claimed invention is software, method or an actual system. For purposes of this examination, examiner will consider the "audit system" to be a process (method).

### **Claim Rejections - 35 USC § 101**

9. The following is a quotation of the first paragraph of 35 U.S.C. 101:  
Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.
10. Claims 1-12 are rejected under 35 U.S.C.101 because the claimed invention does not produce a useful, concrete and tangible result. In this case, the invention comprises the steps of...But never produces a result based on the steps...

### **Claim Rejections - 35 USC § 103**

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:  
A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- (a) Determining the scope and contents of the prior art.
- (b) Ascertaining the differences between the prior art and the claims at issue.
- (c) Resolving the level of ordinary skill in the pertinent art.
- (d) Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 1-12 are rejected as being unpatentable over Casati et al., US Patent Application Publication No US2002/0174093, in view of Morinville US Patent No US 7,185,010 B2 in further view of Paulus et al., US Patent No US 7246137 B2.

14. With respect to Claim 1,

Casati as shown discloses the following limitations:

- *a set of business processes describing the operations of an enterprise;*
- *a subset of the set of business process comprising a set of business functions assigned to an employee;* (see at Abstract: "...A method of identifying and analyzing business processes...and Figure 3, page 2, paragraph 27: "...the process execution information is written directly to an audit log database 360...and paragraph 29: "...the resource executive 312 selects specific resources such as a specific vendor, a specific employee...Audit logger application 340 stores at least a subset of the information in the audit log files into audit log database 360"...")

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- *a process compatibility registry defining a set of business function incompatibilities, (see at least Figure 7, and page 3, paragraph 35: "...the workflow warehouse with data mining techniques can reveal that a specific resource fails or is incapable of meeting process requirements..." and paragraph 36: "...the audit log database and the warehouse must have resource assignment information to identify the problem (causation)..." )*
- *an audit manager adapted to compare the each of the set of business function incompatibilities of the process compatibility registry with the set of business functions assigned to an employee. (see at least Figures 5 & 6, page 3 and paragraphs 35-38: "...the workflow warehouses with data mining techniques can reveal that a specific resource fails or is incapable of meeting process requirements..."; and paragraph 38: "...The audit log database 510, aggregate data 520, process metadata 530 (e.g., process properties including cost, priority, etc.), prediction models 570, warehouse settings 560, and other analysis data 540 are loaded into data warehouse 550. The data warehouse may also contain the definitions of processes, nodes, or resources that can be associated with behavior of interest..."; and paragraph 40: "...other analysis data may include trend lines or models that the user desires to compare the process execution performance..." )*

Casati discloses all of the limitations described above. Casati does not disclose the following limitation, but Morinville however, as shown discloses:

- *each business function incompatibility lists at least two business functions that should not be assigned to the employee; (see at least Figures 3 and 4, and column 6, lines 26-55: "...the organizational structure is a hierarchical data structure of positions reporting to positions. Each position has an associated role which is used to control access to business processes and information... the position of Org 0 in the organizational structure is defined in the system by the following rules: Org 0 cannot be created by the user, ...Org 0 cannot have a superior position;.. Org 0 cannot have people tracked to it;*

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Org 0 cannot be an approver; ...and Org 0 cannot have more than one directly subordinate position...and lines 57-62: "...positions other than Org 0 are defined by the following rules ... they cannot have more than one superior position ... they cannot have more than one role... they cannot have more than one active user...")

It would have been obvious to one skilled in the art at the time of the invention to combine the workflow warehouse and audit log database of Casati with the business process management application, specifically the business processor engine of Morinville because this would provide a more efficient method for management and implementation of business processes amongst employees.

15. With respect to Claims 2 and 3,

Casati in view of Morinville discloses the limitations as shown in the above rejections. Casati as shown further discloses:

- *a report generator adapted to create a report identifying the employee in response to the set of business functions matching at least one business function incompatibility.*
- *the report further includes an identification of the business function incompatibility matching the set of business functions.* (see at least Figure 7 and page 3, paragraph 35: "...Analyzing the workflow warehouse with data mining techniques can reveal that a specific resource fails or is incapable of meeting process requirements under certain conditions which are not otherwise obvious to the observer and may in fact be inter-related with conditions seemingly unrelated to the resource. Generally, these techniques may identify conditions for which process execution quality departs from typical or average quality or is incapable of meeting a service level agreement. The user must select a sufficient level of reporting detail to ensure that data directly related to the cause or correlated with the cause of these differences in performance are stored in the audit logs..."; and paragraph 41: "...standard commercial reporting tools can still be used to generate reports..."; and page 3, paragraph 35: "...the workflow warehouse with data



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mining techniques can reveal that a specific resource fails or is incapable of meeting process requirements...")

16. With respect to Claim 4,

Casati in view of Morinville discloses the limitations as shown in the above rejections. Casati does not disclose the following limitations, but Morinville however as shown discloses:

- *a set of workflow-enabled applications having a set of functions adapted to implement the set of business processes, such that an assignment of the set of business functions to the employee enables the employee to access a corresponding subset of functions implementing the set of business functions.* (see at least column 7, lines 5-12: "...Referring to FIG. 5, the role structure comprises a hierarchical organization of roles within the company. Each role is a subset or specialization of the roles, which are superior to it in the role structure. Each role can be associated with one or more of the positions in the organizational structure, and is used as the basis for controlling the access of those employees associated with the corresponding organizational positions to particular business processes..."; and lines 27-31: "...The role structure is used to provide the position, and thereby the user, with access to information and business processes..")

It would have been obvious to one skilled in the art at the time of the invention to combine the workflow warehouse and audit log database of Casati with the hierarchical role structure of Morinville because this would provide a more efficient method for management and implementation of business process and communicating information to employees.

17. With respect to Claim 5,

Casati in view of Morinville discloses the limitations as shown in the above rejections. Casati does not disclose the following limitations, but Morinville however as shown discloses:

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- *a business process library having a plurality of business processes, wherein the set of business processes is a subset of the plurality of business processes of the business process library* (see at least Column 3, lines 66, 67 and column 4, lines 1-8: "...defining one or more business processes, a first position within the hierarchical organizational structure associating one or more access/approval rules with a first one of the business processes, wherein the access/approval rules are applicable to a first subset of the roles, and automatically associating the one or more access/approval rules with the first one of the business processes for all positions that are subordinate to the first position within the hierarchical organizational structure and that are associated with the first subset of roles..."; and column 8, lines 34, 35: "...A Library contains information that is linked to role hierarchies..."; and column 9, lines 15-20: "...The business processes library houses all of the business processes that are necessary for each role to perform day-to-day business. This information is used to allow employee access to business processes and purchases...")

It would have been obvious to one skilled in the art at the time of the invention to combine the workflow warehouse and audit log database of Casati with the business process library of Morinville because this would allow the company to efficiently administer information at various levels of the role, and thereby apply broad changes across the entire workforce, function, skill or specialty, or across titles, grades and legal categories from a single location.

18. With respect to Claim 6,

Casati in view of Morinville discloses the limitations as shown in the above rejections. Casati does not disclose the following limitations, but Morinville however as shown discloses:

- *the business process library includes a plurality of business function incompatibilities corresponding to at least a portion of the plurality of business functions, each business function incompatibility listing at least two business functions that should not be assigned to the employee* (see at least column 8, lines 34, 35: "...A Library contains information

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that is linked to role hierarchies...”; and column 9, lines 15-20: “...The business processes library houses all of the business processes that are necessary for each role to perform day-to-day business. This information is used to allow employee access to business processes and purchases...”; and Figures 3 and 4, and column 6, lines 26-55: “...the organizational structure is a hierarchical data structure of positions reporting to positions. Each position has an associated role which is used to control access to business processes and information... the position of Org 0 in the organizational structure is defined in the system by the following rules: Org 0 cannot be created by the user, ...Org 0 cannot have a superior position;.. Org 0 cannot have people tracked to it; Org 0 cannot be an approver; ...and Org 0 cannot have more than one directly subordinate position...and lines 57-62: “...positions other than Org 0 are defined by the following rules ... they cannot have more than one superior position ... they cannot have more than one role... they cannot have more than one active user...”)

It would have been obvious to one skilled in the art at the time of the invention to combine the workflow warehouse and audit log database of Casati with the business process management application, specifically the business processes library of Morinville because this would provide a more effective method for communicating information and providing employees access to their respective business processes for various roles.

19. With respect to Claim 7,

Casati in view of Morinville discloses the limitations as shown in the above rejections. Casati as shown further discloses:

- *the audit manager is adapted to receive a selection from an auditor designating a business process to be selected from the business process library and, in response to the selection, add the designated business process to the set of business processes describing the operations of the enterprise and add at least one business function incompatibility to the process compatibility registry.*(referring to Figure 7, page 4,

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paragraph 47: "...In step 710, a workflow audit log is generated for instances of execution of a defined process. In step 720, the desired process instance execution information is extracted from the audit log. The extracted data is cleaned and transferred into records with pre-determined formats in step 730. This ensures data from different vendor audit logs can be put into a common format for subsequent analysis. The data records are then loaded into the data warehouse in step 740. Steps 720-740 are handled by extract, transfer, and load scripts in one embodiment..."; and paragraph 48: "...In step 750, data mining is applied to the data warehouse data in order to identify patterns across instances of process executions..."; and paragraph 50: "...In step 760, completion probabilities from the start node and nodes other than the start node can be generated for subsequent instantiations of the process. In step 770, execution of a subsequent instance of the process is modified in response to at least one identified pattern. As discussed above, the process may be dynamically modified by performing any of the steps of modifying the resource assignment, modifying the execution path, redefining the process, changing the activity priority, or changing the resource assignment criteria...")

20. With respect to Claims 8-11,

Casati in view of Morinville discloses the limitations as shown in the above rejections. The combination of Casati and Morinville does not disclose the following limitations, but Paulus however as shown discloses:

- *a new business function is adapted to be assigned to the employee and added to the set of business functions, and the audit manager is adapted to create an alert in response to the set of business functions matching at least one business function incompatibility;*
- *the alert is communicated with an auditor*
- *the alert includes an identification of the employee*
- *the alert includes an identification of the business function incompatibility matching the set of business functions*

(see at least column 3, lines 1-10: "...The received audit data is sorted and stored by the audit warehouse according to its association with the given business process or subprocess steps of a given business process so that audit data relating to the given business process can be retrieved together to check for compliance with required procedures..."; and Figure 5, column 8, lines 2-6: "... The applications themselves must provide the audit warehouse with the necessary information, including document number, type and content, user ID, and role, as well as other data relevant for security checks..."; and Figure 11, column 10, lines 57-60: "... the internal check interface can be in the form of alerts to the participants as well as reports of periodic checks or spot checks for compliance with security procedures..." and claim 18: "...an internal analysis interface for issuing runtime alerts for noncompliant audit data...")

It would have been obvious to one skilled in the art at the time of the invention to combine the workflow warehouse of Casati and the business processes library of Morinville with the Audit Warehouse of Paulus because this would provide a more effective and comprehensive auditing solution for business enterprises.

21. With respect to Claim 12,

Casati in view of Morinville in further view of Paulus discloses the limitations as shown in the above rejections. Casati as shown further discloses:

- *the audit manager is adapted to prevent the assignment of a new business function in response to the set of business functions matching at least one business function incompatibility.* (see at least Figure 6, paragraph 46: "...the prediction models may be used to identify the risk of an undesirable pattern and then re-assign resource assignments to prevent realization of the undesirable pattern. Alternatively, the monitoring and optimization block 660 may update the workflow engines to re-prioritize resource assignments, modify resource assignment criteria, or modify process definitions in order to reduce the likelihood of the realization of an undesirable pattern...."; and

Figure 7, paragraph 50: "...step 770, execution of a subsequent instance of the process is modified in response to at least one identified pattern....the process may be dynamically modified by performing any of the steps of modifying the resource assignment, modifying the execution path, redefining the process, changing the activity priority, or changing the resource assignment criteria..."

### Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- McGoveran, US Patent Application Publication No US2007/0150330A1, published June 28, 2007. Reference describes a method and device for managing and controlling business processes and workflow.
- Blocher et al., US Patent Application Publication No 2002/0194059 A1, published December 19, 2002. Reference describes a method for reviewing a business process which identifies and addresses risks.
- Flam, US Patent No 7,216,132 B1, issued May 8, 2007. Reference describes a process control system that automatically monitors processes and performs activities based on conditions detected during monitoring.

23. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Kimberly L. Evans** whose telephone number is **571.270.3929**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are

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unsuccessful, the Examiner's supervisor, **James A. Reagan** can be reached at **571.272.6710**.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free). Any response to this action should be mailed to: **Commissioner of Patents and Trademarks Washington, D.C. 20231** or faxed to **571-273-8300**. Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**: Randolph Building 401 Dulany Street, Alexandria, VA 22314.

/Kimberly Evans/Examiner, Art Unit 4143

March 17, 2008

/James A. Reagan/Supervisory Patent Examiner, Art Unit 4143